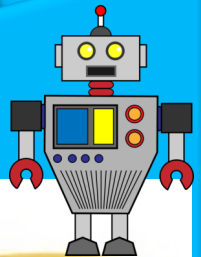


# STEM Careers



Click on the hexagon  
to get started!



Find the STEM career that may be right for you!  
Choose a topic below that interests you...

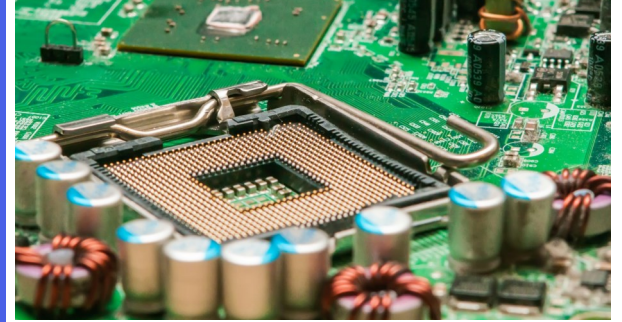
### Plants and Animals



### Chemistry

A periodic table of elements with groups and periods labeled. The table is organized into 18 groups and 7 periods. Elements are color-coded by groups: Group 1 (pink), Group 2 (orange), Groups 3-10 (various shades of green and blue), Group 11 (light blue), Group 12 (light green), Group 13 (yellow), Group 14 (light green), Group 15 (light blue), Group 16 (light green), Group 17 (light blue), and Group 18 (light green). The table includes element symbols and atomic numbers.

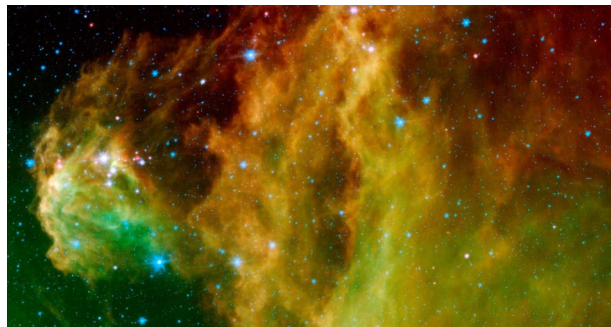
### Computers and Electronics



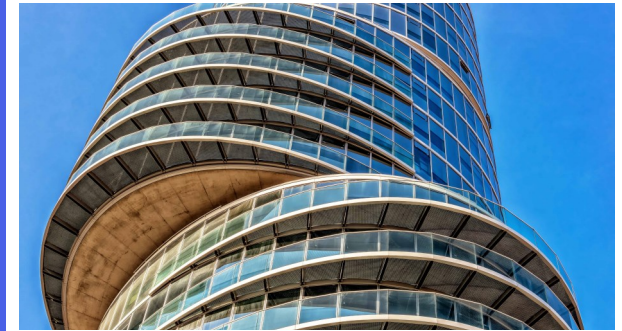
### Art



### Space and Astronomy



### Building and Design



### Working with People



### Math and Measurements



### Earth and Natural Resources







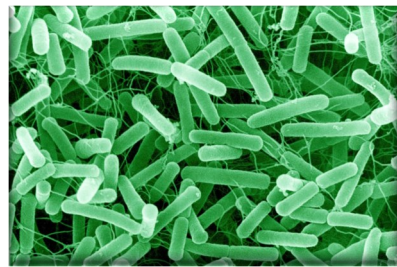
# PLANTS & ANIMALS

## LIST

Entomologist



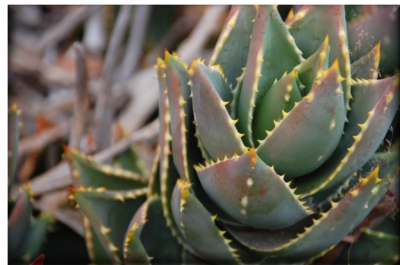
Microbiologist



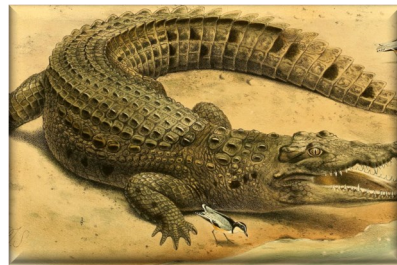
Veterinarian



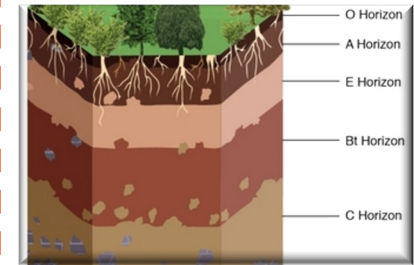
Botanist



Zoologist



Soil Scientist



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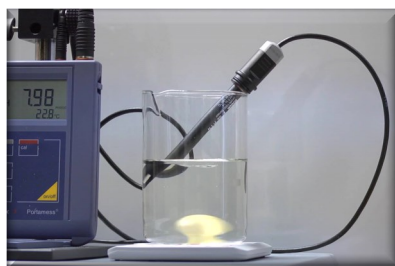
# CHEMISTRY

## LIST

### Food Science



### Chemical Engineer



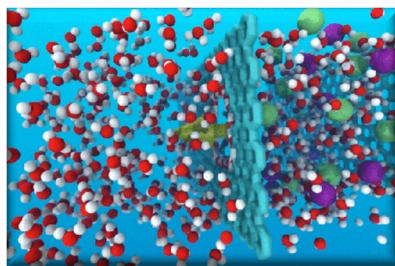
### Materials Science



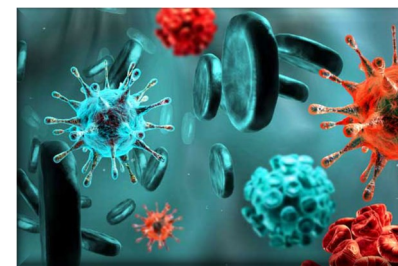
### Biochemist



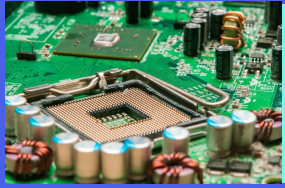
### Nuclear Science



### Toxicologist







# COMPUTERS AND ELECTRONICS

## LIST

### Web/Game Development



### Systems/Software Engineer



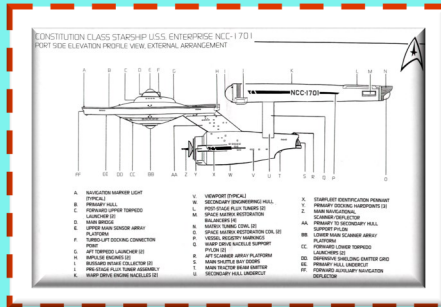
### Information Security



### Electrical Engineer



### Technical Writer



### Robotics

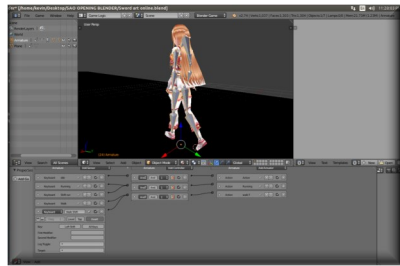




# ART

## LIST

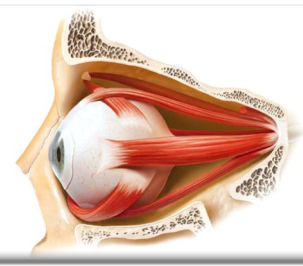
Motion/Graphics Artist



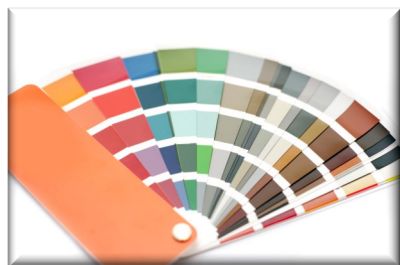
Photographer



Medical Illustrator



Interior Design



Chef/Culinary Arts



Industrial Design







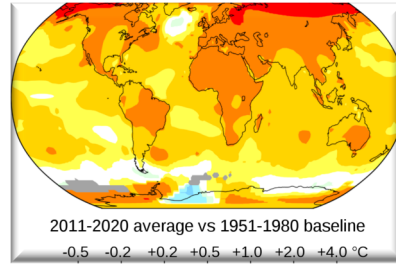
# SPACE AND ASTRONOMY

## LIST

Aerospace Engineer



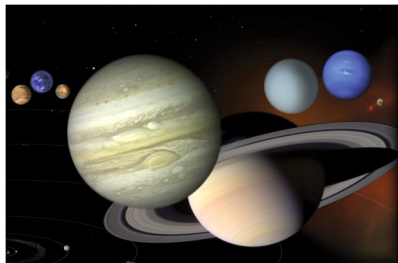
Climate Scientist



Astronomer/Physicist



Planetary Scientist



Astronaut



Pilots/Aviators





# BUILDING AND DESIGN

## LIST

Environmental Engineer



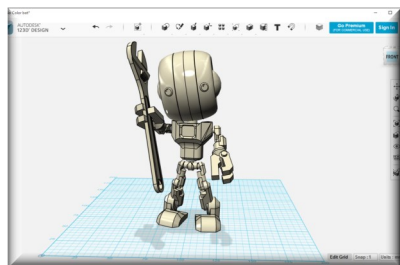
Urban Planner



Mechanical Engineer



3D CAD Designer



Architect



Cartography/Surveying







# WORKING WITH PEOPLE

## LIST

Physical Therapist



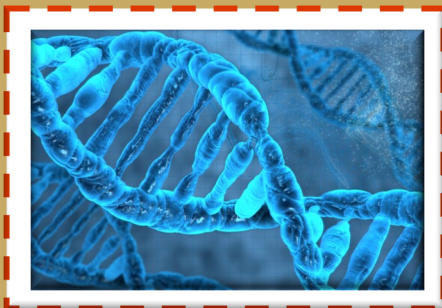
Nutritionist



Physician/Surgeon



Geneticist



Teacher



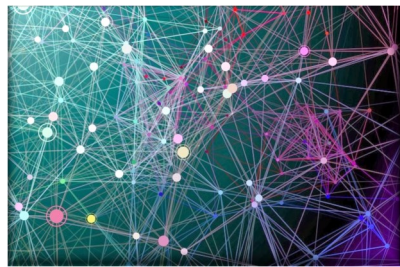
Psychologist



# MATH AND MEASUREMENTS

## LIST

Data Analyst



Real Estate Agent



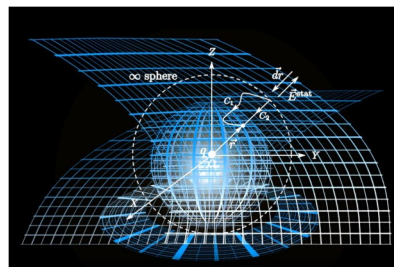
Entrepreneur



Financial Analyst



Mathematician



Economist







# EARTH AND NATURAL RESOURCES

## LIST

### Solar and Wind Careers



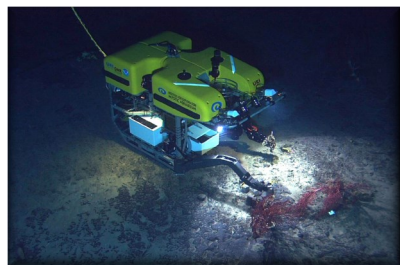
### Climatology



### Geology



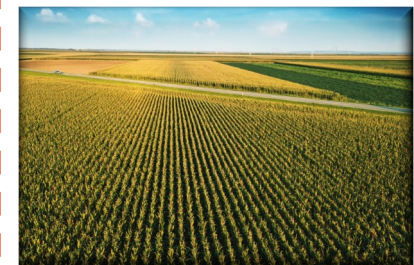
### Oceanography



### Forestry



### Agriculture (farming)



JOB: Entomologist

Pay Range: \$45,000-\$71,000

BACK

What do I do?

Entomologists study insects, their environments, and their behaviors through observational, experimental, chemical, and genetic techniques. There are many different types of entomologists such as; veterinary, medical, forensic, forest, structural, and more.

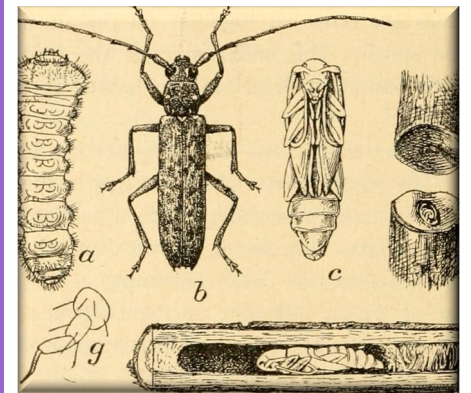


How do I become this?

Earn a bachelor's degree in entomology or general biology. After college, many entomologists earn certificates relating to their specific type of entomology while working in their field.

Who/how do I help?

Entomologists help in many ways, investigating things such as disease prevention, crime-solving, medicine creation, and more.





JOB: Microbiologist

Pay Range: \$46,000-\$90,000

BACK

What do I do?

A microbiologist is a scientist who studies microscopic organisms including bacteria, algae, and fungi. They also study non-living things such as viruses.

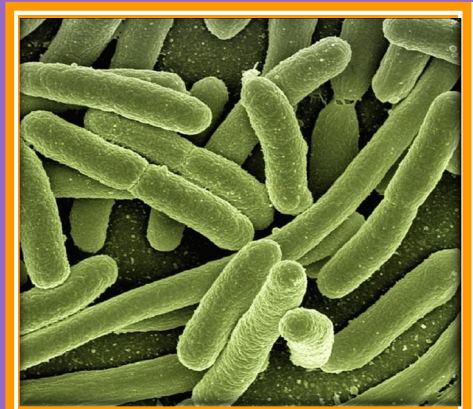
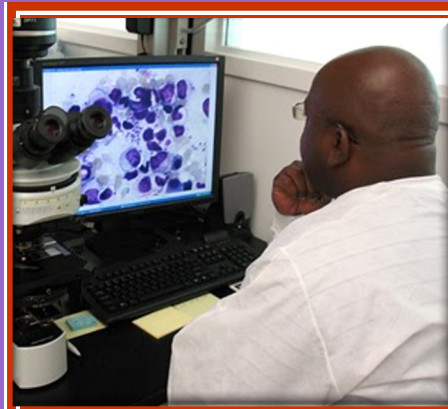


How do I become this?

Earn a bachelor's degree in microbiology. After college, many microbiologists earn advanced degrees in their specialties such as medicine, veterinary studies, or environmental science.

Who/how do I help?

Depending on their field of study, microbiologists help solve problems dealing with global warming, identify harmful viruses that attack humans and animals, and improve public health.



JOB: Veterinarian

Pay Range: \$62,000-\$120,000

[BACK](#)

What do I do?

A veterinarian provides medical care to a variety of animals. They practice disease treatment, provide general medical care, ongoing treatment of disorders, and perform surgeries.



How do I become this?

Veterinarians need 45-90 hours of targeting learning, or a bachelor's degree before applying to veterinary school. They must then earn their doctorate of veterinary medicine and take a licensing exam to begin practicing.

Who/how do I help?

Veterinarians care for the health of animals and work to improve public health by diagnosing and treating animals and researching their medical conditions.





JOB: Botanist

Pay Range: \$53,000-\$75,000

BACK

## What do I do?

Botanists study various aspects of plants. Some botanists study the effects of different types of pollution on plants. They may focus on the agricultural applications of plants used for food, fiber, fuel, turf, and cover crops, studying their responses to stresses from pests, disease, and climate variations. They may also work on plant breeding to development hardier strains.



## How do I become this?

Most botanists have bachelor's degrees in botany, plant science, plant biology, or general biology. These degrees open up opportunities in entry-level positions as laboratory technicians or technical assistants. Many higher positions require a master's or doctoral degree.

## Who/how do I help?

Botanists use what they learn to advise policymakers and help protect endangered species and natural areas. The important work of botanists is critical to environmental conservation and improving the ecosystem.



JOB: Zoologist

Pay Range: \$30,000-\$80,000

BACK

### What do I do?

Zoologists are life scientists who study animals, observing them in the laboratory and in their natural habitat. In general, all zoology specializations involve work with animals although some zoologists study only parts of an organism. Some specializations include; zookeeper, wildlife educator, researcher, and wildlife rehabilitator.



### How do I become this?

A bachelor's degree in zoology along with experience through internships, undergraduate research, or co-op programs. Many zoologists also go on to earn their master's degrees or doctorates to advance in their field.

### Who/how do I help?

A career in zoology offers an opportunity to make a difference to the planet's ecology through conservation work.





JOB: Soil Scientist

Pay Range: \$52,000-\$75,000

BACK

What do I do?

A soil scientist studies the physical and chemical properties of soil. He or she also studies the distribution, origin, and history of soils, as well as the species that partly comprise them. Since soils are affected by other systems, soil scientists also study land and water resources.



How do I become this?

Most positions require a minimum of a bachelor's degree from an agricultural university, many of which offer two concentrations in soils: environmental soil science or agricultural soil science.

Who/how do I help?

Many soil scientists work on feeding the world's people in agriculturally, environmentally, and economically sustainable ways.





JOB: Food Science

Pay Range: \$45,000-\$74,000

BACK

What do I do?

Food scientists use chemistry, biology and more to study the elements of food. They may ensure that food processing centers meet health guidelines, or they may do research to improve a food's taste while adding to its health benefits. Some may even use nanotechnology to develop ways to find food contaminants.

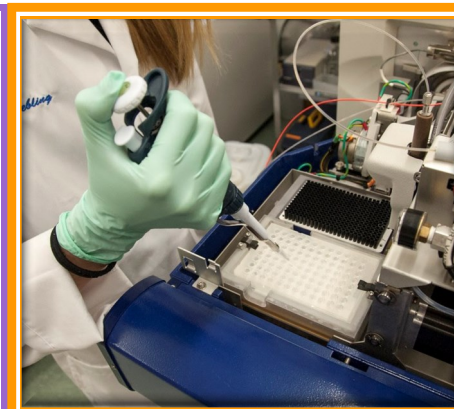


How do I become this?

Completing a Bachelor of Science in Food Science is typically the minimum requirement for entry-level food scientist positions. Many programs will also allow you to specialize in a food science category such as; biochemistry, microbiology, food processing, nutrition, industry regulations and food safety.

Who/how do I help?

Food scientists study the nutritional value of food, look for new food sources, and try to make processed foods healthier.



JOB: Chemical Engineer

Pay Range: \$65,000-\$160,000

BACK

## What do I do?

Chemical engineers use scientific and engineering principles to research, develop and manufacture chemicals, drugs, fuels, food and a wide range of other products. They design experiments, create safety procedures for working with dangerous chemicals, conduct tests and monitor results throughout production. Typically, chemical engineers will specialize in a particular process or specialize in a particular field or product.



## How do I become this?

You will need to obtain a bachelor's degree in chemistry, chemical engineering, or process engineering. Many higher positions require a master's or doctoral degree.

## Who/how do I help?

Chemical engineers use computer models and other processes to test the efficacy of products and determine their safety for consumers and the environment.



**JOB:** Materials Scientist or Materials Engineer

**Pay Range:** \$47,000-\$100,000

**BACK**

## What do I do?

The main goal of someone practicing materials science is to study and understand old materials in order devise ways to strengthen existing materials, combine materials, or create brand new materials with certain properties and characteristics for use in different applications and products.



## How do I become this?

Materials scientists and engineers must have a bachelor's degree in materials science and engineering or in a related engineering field. Completing internships and cooperative engineering programs while in school can be helpful in getting hired as a materials engineer.

## Who/how do I help?

Material science engineers are involved in the research, design and development of materials to advance technology and products in many fields such as; aerospace, power and telecommunications, sports equipment manufacturers, biomedical engineering, and transport.





JOB: Biochemist

Pay Range: \$33,000-\$67,000

[BACK](#)

## What do I do?

Biochemistry is a very wide field of study with a range of applications in medicine, agriculture, and the environment. They may study cell development, how cell structure relates to function, how cells communicate with each other to fight disease or regulate an organism's development, and how they metabolize food and oxygen. Many biochemists study how pharmaceutical drugs and foods affect an organism's biology or how environmental toxins may disrupt biological processes.



## How do I become this?

Biochemists earn a B.S. in biochemistry, chemistry, or biology. Most biochemists earn advanced degrees and specialize in a particular area like molecular biology or bioinformatics.

## Who/how do I help?

This field plays an important role in public health. Biochemists help determine the environmental causes of disease and study the effects of industrial chemicals and other pollutants on wildlife. Some work on solving the food crisis, turning energy in waste products into biofuels, and developing artificial photosynthesis.



## JOB: Nuclear Science

Pay Range: \$46,000-\$240,000  
(depending on career)

[BACK](#)

### What do I do?

Nuclear science is the study of radiation and its effects on different materials, as well as what kind of useful applications it can have for humanity. Nuclear technicians (who assist researchers and engineers), nuclear engineers (who find useful and safe applications for nuclear energy), and medical physicists (who use radioactive materials to derive new treatments for illnesses) are just three of the possible careers for those trained in nuclear science.



### How do I become this?

Nuclear technicians need an associate's degree or military training, nuclear engineers require a bachelor's and a master's degree. And medical physicists require a master's degree or a doctorate.

### Who/how do I help?

Nuclear science helps in many areas like advancing medicine and energy alternatives.



JOB: Toxicologist

Pay Range: \$50,000-\$100,000

BACK

What do I do?

A toxicologist is a scientist who tests bodily fluids and tissue samples during autopsies to determine the presence of toxins or chemicals. They work in laboratories and use various methods to locate toxic levels of drugs or other poisons within the body.



How do I become this?

Toxicologists must have a bachelor's degree in toxicology and lab experience or internships are preferred.

Who/how do I help?

Toxicologists help keep people safe from potentially harmful toxins that cause cancer, disease, and deformity. They may also help identify water toxins or help police look for toxins at crime scenes.





JOB: Web/Game Development

Pay Range: \$50,000-\$100,000

BACK

What do I do?

Web developers work with clients, companies, or schools to create colorful and interactive websites that attract attention and are easy for users to navigate. Video game developers are responsible for using software and codes to create the visual effects and animations for video games.

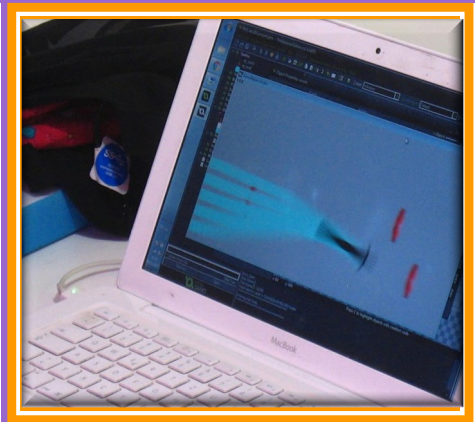


How do I become this?

Web developers can earn an associate's degree or earn certifications based on their chosen specialty. Game developers need a bachelor's degree in computer science or graphics.

Who/how do I help?

Web developers help create user friendly websites for all purposes and game developers create hours of entertainment when people are looking to relax.



JOB: Systems/Software Engineer

Pay Range: \$60,000-\$160,000

[BACK](#)

## What do I do?

Software engineering is a branch of computer science which includes the development and building of computer systems software and applications software. There are many types of software that a software engineer can develop, such as operating systems, computer games, middleware, business applications and network control systems.

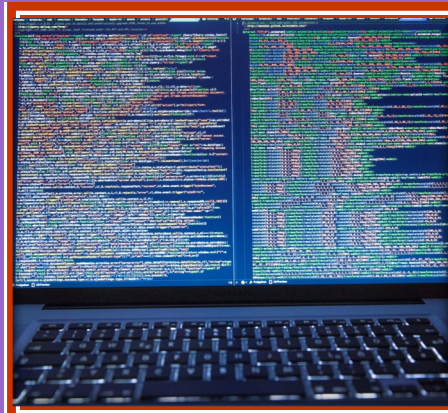


## How do I become this?

Software engineers require a bachelor's degree and focus on a number of specialized areas such as; computer security, project management, user interfaces, and embedded systems.

## Who/how do I help?

Software engineers are often involved from the early stages of software planning right through to the testing, development, training, and support stages to help their clients make the most of the available technology.



JOB: Information Security

Pay Range: \$60,060 - \$103,590

BACK

What do I do?

Information security analysts plan and carry out security measures to protect an organization's computer networks and systems. Their responsibilities are constantly changing as the number of cyberattacks increases.



How do I become this?

Information security analysts usually need at least a bachelor's degree in computer science, information assurance, programming, or a related field.

Some employers prefer applicants who have a Master of Business Administration (MBA) in information systems.

Who/how do I help?

Information security analysts are involved with creating their organization's disaster recovery plan, a procedure that IT employees follow in case of a cyberattack or emergency.

They often work to protect information for state/city governments, hospitals, and military installations.





## JOB: Electrical Engineer

Pay Range: \$64,870 - \$159,520

BACK

### What do I do?

Electrical engineers design, develop, test, and supervise the manufacture of electrical equipment, such as electric motors, radar and navigation systems, communications systems, or power generation equipment. Electrical engineers also design the electrical systems of automobiles and aircraft.

Electronics engineers design and develop electronic equipment, including broadcast and communications systems, such as portable music players and Global Positioning System (GPS) devices.



### How do I become this?

Electrical and electronics engineers must have a bachelor's degree.

High school students interested in studying electrical or electronics engineering benefit from taking courses in physics and math, including algebra, trigonometry, and calculus.

Courses in design are also helpful, because electrical and electronics engineers often are required to prepare technical drawings.

### Who/how do I help?

Electronics engineers work with aviation, computing, transportation, and manufacturing industries. They also may work on satellites, flight systems, radar and sonar systems, and communications systems.



## JOB: Technical Writer

Pay Range: \$45,510-\$119,040

BACK

### What do I do?

Technical writers, also called *technical communicators*, prepare instruction manuals, how-to guides, journal articles, and other supporting documents to communicate complex and technical information more easily.

They may also develop, gather, and write about technical information and give presentations to others in their organization.



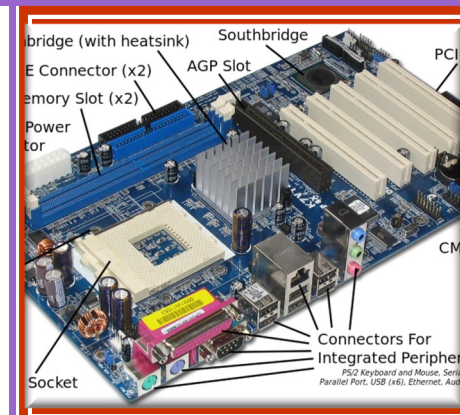
### How do I become this?

Technical writers usually need a college degree. In addition, knowledge of or experience with a technical subject, such as science, medicine, technology, or engineering, is useful.

### Who/how do I help?

Technical writers help all sorts of people by making sure that the information is correct and easy to find.

Technical writers often work with engineers, IT support specialists, and software developers to manage the flow of information between the different groups.



## JOB: Robotics

Pay Range: \$59,00-\$125,000

BACK

### What do I do?

There are many exciting careers in the fast-growing field of robotics:

- Robotics engineer* is the person responsible for creating and designing robots and robotic systems.
- Robotics technicians* will be more focused on testing and repairing robotics systems.
- Artificial intelligence researchers* work to uncover the possibilities of these new technologies.



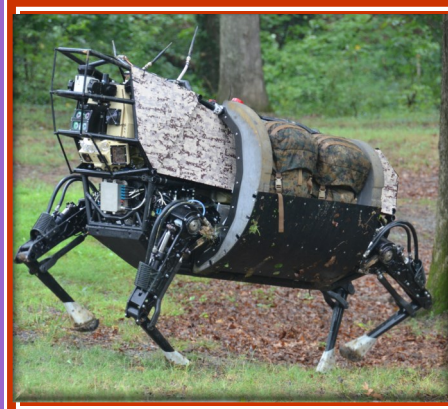
### How do I become this?

Most careers in robotics will require at least a bachelor's degree in robotics, computer science, or engineering fields.

Specialized experience with programming and/or electronics can also be useful depending on the field.

### Who/how do I help?

Robots are being used and developed for a wide variety of tasks including health care, construction, deep sea and space exploration, agriculture, and military.





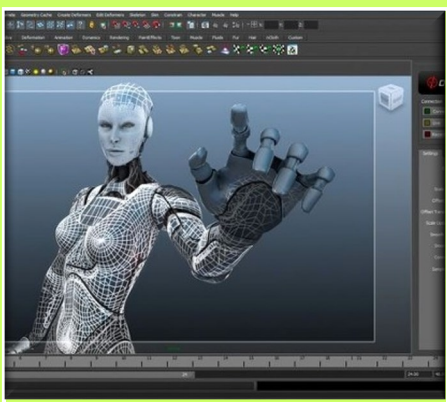
## JOB: Motion/Graphics Artist

Pay Range: \$37,000-\$100,000

BACK

### What do I do?

Motion Graphics Designers, sometimes just called motion designers, create artwork for the web, television, or film. They use visual effects, animation and other cinematic techniques to bring life to their creations.



### How do I become this?

Employers typically require a bachelor's degree, and they look for workers who have a good portfolio and strong technical skills. Special effects artists and animators typically have a bachelor's degree in fine arts, computer graphics, animation, or a related field. Programs in computer graphics often include courses in computer science in addition to art courses.

### Who/how do I help?

When done right, motion graphics can delight, inspire, and guide your audience to take whatever action your brand most needs. In the end, the greatest value of motion graphics is their ability to quickly tell your brand's story in a way that creates a connection with the viewer.



JOB: Photographer (including drones) Pay Range: \$14,000-\$102,000

BACK

## What do I do?

Photographers record events and tell stories using images. They take pictures of people, places, events, and objects. Photographers often specialize in a type of photography. Portrait photographers take pictures of people in studios or on-site at various locations.

Filmmakers are increasingly using drones for aerial photography and for special effects. Drones can be used to simulate views that would be seen by any type of aircraft or creature, including spacecraft and superheroes. They can land, take off, hover and crash. They are also ideal for shooting documentaries.

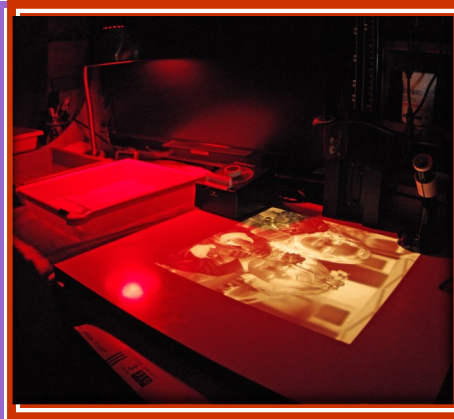


## How do I become this?

You need either a bachelor's degree in visual arts, specializing in photography, or specialized training in photography in high school, college or specialized training schools, or you need extensive on-the-job training under the supervision of a photographer.

## Who/how do I help?

Photography helps you capture anything you feel is important to remember. One photograph is powerful enough to not only remind you of an event or detail, but can bring you right back to the feelings, sounds, and even smells of the moment.



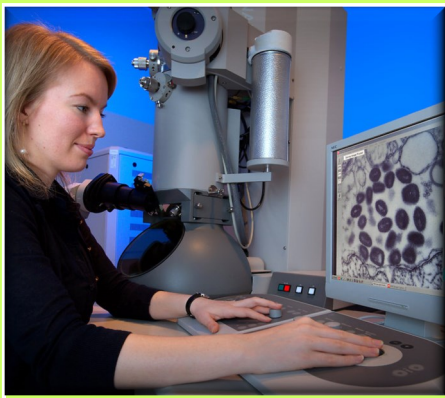
JOB: Medical Illustrator

Pay Range: \$21,500-\$87,500

BACK

What do I do?

A medical illustrator / animator is a professional artist with extensive training in medicine, science, communication and media technology. As visualization specialists, they create imagery that advances medical science knowledge and empowers health literacy for patients and the public.

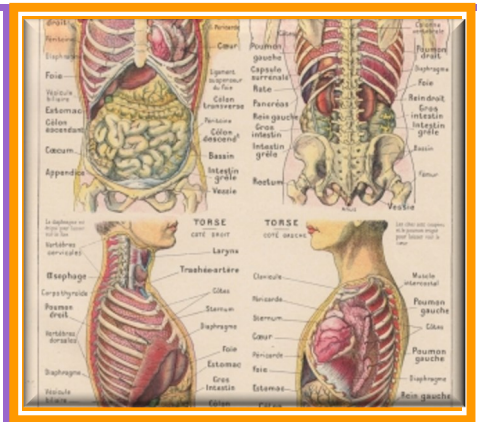
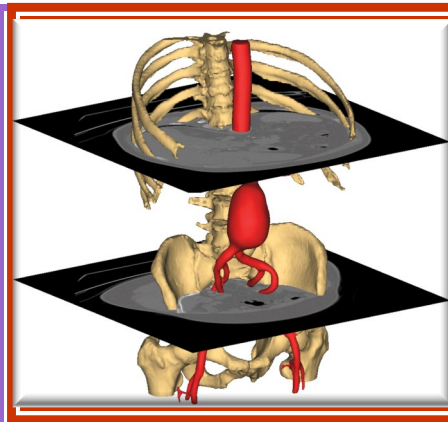


How do I become this?

In general, a bachelor's degree with a major in art and a minor in the biological sciences, or a major in science with a minor in art, is preferred. In addition, a portfolio of artwork and a personal interview are generally required.

Who/how do I help?

The main reason why we have medical illustration is to create artwork to dissect and explain anatomy, surgical procedures, the level and progression of a particular disease, or the effects of medicine on a disease, which is meant to teach and to inform.





JOB: Interior Designer

Pay Range: \$29,000-\$77,000

BACK

What do I do?

Interior designers make indoor spaces functional, safe, and beautiful by determining space requirements and selecting essential and decorative items, such as colors, lighting, and materials. They must be able to draw, read, and edit blueprints.



How do I become this?

A bachelor's degree is usually required in order to become an interior designer, as are classes in interior design, drawing, and computer-aided design (CAD).

Who/how do I help?

Interior designers impact the lives of people in a given environment, whether meeting their needs in corporate spaces, restaurants, courthouses, fitness centers, or libraries.



JOB: Chef/Culinary Arts

Pay Range: \$19,000-\$67,000

BACK

What do I do?

Culinary chefs run a kitchen in a restaurant or other eating establishment. They select ingredients and develop recipes for the menu. They order kitchen supplies and food, maintain inventory and check food and other ingredients for freshness and taste.



How do I become this?

The requirements for becoming a chef are often a combination of education and experience. The vast majority of culinary arts students pursue a combination of an associate degree in online chef school and an experience-based certificate.

Who/how do I help?

People love eating out, so whether you are helping make a special event happier or a lunchtime meal more delicious, it's good to know your work is being appreciated.



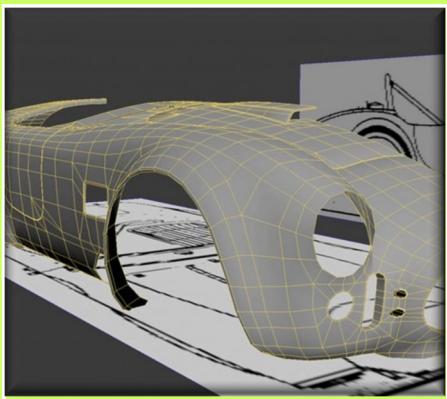
JOB: Industrial Design

Pay Range: \$43,000-\$93,000

[BACK](#)

## What do I do?

Industrial designers develop the concepts for manufactured products, such as cars, home appliances, and toys. They combine art, business, and engineering to make products that people use every day. Industrial designers consider the function, aesthetics, production costs, and usability of products when developing new product concepts.

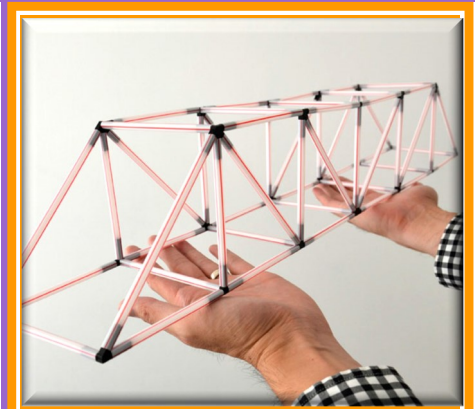
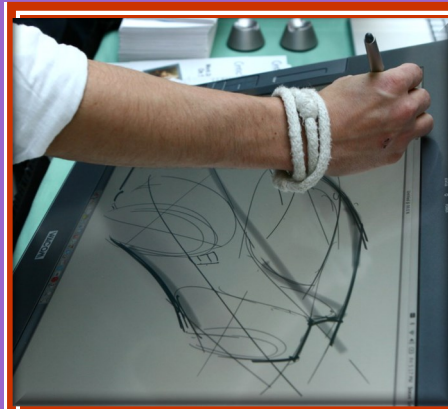


## How do I become this?

A bachelor's degree in industrial design, architecture, or engineering is usually required for entry-level industrial design jobs. Most industrial design programs include courses in drawing, computer-aided design and drafting (CADD), and three-dimensional modeling, as well as courses in business, industrial materials and processes, and manufacturing methods.

## Who/how do I help?

Industrial designers develop aspects of a product that create emotional connections with the user. They integrate all aspects of form, fit and function, optimizing them to create the best possible user experience.





JOB: Aerospace Engineer

Pay Range: \$63,000-\$150,000

BACK

What do I do?

Aerospace Engineers design aircraft, spacecraft, missiles, and other airborne objects. Creating prototypes of these designs and testing them is also a primary part of the job. They may also evaluate the designs of other engineers to ensure that the idea meets certain ethical, safety, and environmental standards.

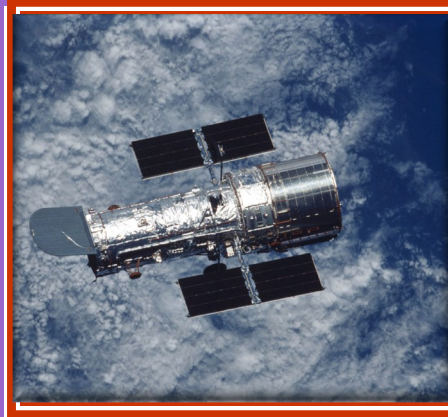


How do I become this?

Aerospace Engineers require at least a Bachelor's degree to enter into the field, typically in aerospace engineering.

Who/how do I help?

Many of the more fascinating machines that help make our world go 'round - like airplanes, spacecraft, missiles, and satellites - are a direct result of the brilliant minds of aerospace engineers. Likewise, both private and public organizations rely upon aerospace engineers for a great deal of research.



JOB: Climate Scientist

Pay Range: \$66,010-\$99,016

BACK

## What do I do?

Climatologists seek to understand three main aspects of climate. The first aspect is the weather patterns that govern normal conditions in different regions throughout the world. Secondly, climate scientists try to understand the relationship between different aspects of weather such as temperature and sunlight. The third aspect of climate that climatologists investigate is the way that weather changes over time.



## How do I become this?

Entry level climatology positions will require a bachelor's degree in climatology or a related field such as meteorology or atmospheric science.

## Who/how do I help?

This science helps people better understand the atmospheric conditions that cause weather patterns and temperature changes over time.



JOB: Astronomer/Physicist

Pay Range: \$24,000-\$150,000

BACK

## What do I do?

An astronomer is a scientist who focuses primarily on the study of space, which includes the stars, the planets and the galaxies above us. The evolution of stars is also studied so as to understand how the sun and our solar system of planets were created and what will happen to them as they age.



## How do I become this?

Take standard and advanced high school courses in physics, mathematics, and chemistry. This first step is the foundation for the study of astronomy. Most research astronomers have doctorate degrees in physics or astronomy and also bachelor's and/or master's degrees in a physical science, usually physics or astronomy. It takes about 10 years of education beyond normal high school education to become a research astronomer.

## Who/how do I help?

Astronomy helps us study how to prolong the survival of our species. For example, it is critical to study the Sun's influence on Earth's climate and how it will affect weather, water levels etc.





## JOB: Planetary Scientist

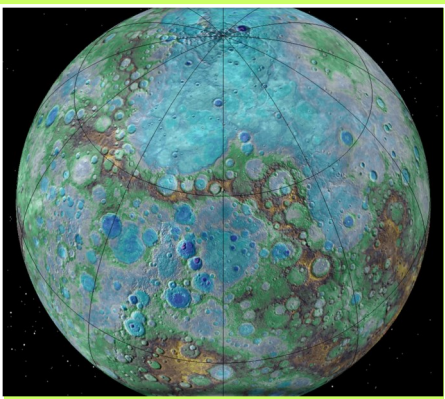
Pay Range: \$22,000-\$160,000

BACK

### What do I do?

Planetary scientists work to improve our understanding of the planets, satellites and smaller bodies in the solar system through:

- Studying the atmospheres, surfaces and interiors of planets
- Understanding the origins of planets and the physical processes at work
- Using radar to determine the physical characteristics of asteroids and to search for asteroids that may pose a hazard to Earth.

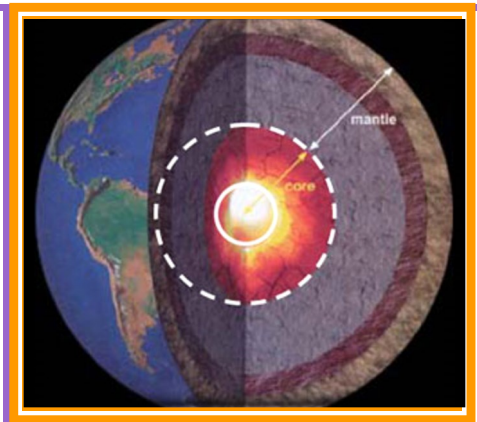
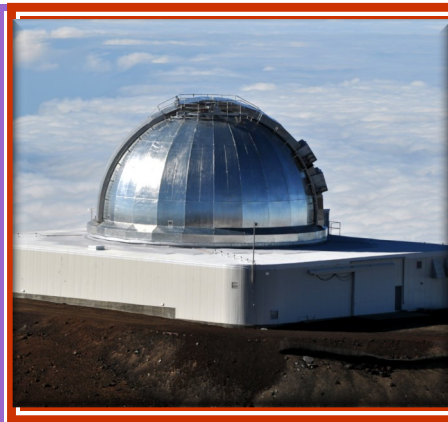


### How do I become this?

You must have completed your high school from science stream. For the entry-level jobs, you must have at least bachelor's degree in planetary science, Earth & Planetary Science, Physics, Chemistry, Mathematics, Geology, Biology or any engineering discipline.

### Who/how do I help?

Planetary Science is a grand human enterprise that seeks to discover the nature and origin of the celestial bodies among which we live, and to explore whether life exists beyond Earth.



JOB: Astronaut

Pay Range: \$42,000-\$550,000

BACK

What do I do?

Astronauts conduct experiments and gather information while in space flight, including on the International Space Station. They also conduct experiments with the spacecraft itself to develop new concepts in design, engineering, and the navigation of a vehicle outside the Earth's atmosphere.



How do I become this?

The minimum qualifications necessary to become an astronaut are listed on NASA's website. In order to become a NASA astronaut, someone needs to be a U.S. citizen and must earn a master's degree in biological science, physical science, computer science, engineering or math. Another route would be for a candidate to have a medical degree, complete a test pilot program at a nationally recognized pilot school or spend two years as a doctoral student within a science, technology, engineering or math field.

Who/how do I help?

Overcoming the challenges of working in space has led to many technological and scientific advances that have provided benefits to society on Earth in areas including health and medicine, transportation, public safety, consumer goods, energy and environment, information technology, and industrial productivity.



## JOB: Pilots/Aviators

Pay Range: \$26,000-\$170,000

[BACK](#)

### What do I do?

An aircraft pilot or aviator is a person who controls the flight of an aircraft by operating its directional flight controls. Some other aircrew members, such as navigators or flight engineers, are also considered aviators, because they are involved in operating the aircraft's navigation and engine systems. Usually, the term aviator applies to small aircraft pilots, as those who fly commercial planes are generally referred to as pilots.



### How do I become this?

If you want to become an aviator, you would need to go to a flying school and pass a flight test to get your pilot's license. To qualify for flight school, you have to pass a medical examination, a basic test, and a background check before you can enroll.

### Who/how do I help?

Even in non-disaster times, volunteer pilots regularly fly patients to treatment, rescue animals, support environmental efforts, and serve many other public needs. They also transport people and goods around the world.





JOB: Environmental Engineer

Pay Range: \$48,000-\$110,000

BACK

## What do I do?

Environmental engineers design systems for managing and cleaning municipal water supplies. They work to improve recycling, waste disposal, public health, and water and air pollution control. They also address global issues, such as unsafe drinking water, climate change, and environmental sustainability.



## How do I become this?

Students generally study basic engineering principles, ecosystem processes, fate and transport of organic contaminants, alternative energy technologies, air quality control technologies, principles of sustainability, water and wastewater treatment, mathematics, and computer-aided design (CAD). Lab and field work are often part of the curriculum. Positions require a minimum of a bachelor's degree (B.S.), usually in environmental engineering, civil, or chemical engineering.

## Who/how do I help?

Environmental engineers are experts who help minimize and manage waste and pollution, protecting the air, water, soil, and ourselves from harmful chemicals. They often coordinate these activities, making sure the companies they work for are in compliance with all environmental regulations.



JOB: Urban Planner

Pay Range: \$43,000-\$120,000

BACK

## What do I do?

Urban planning careers involve helping communities decide how best to use their land and resources with an eye toward future growth and revitalization.

Urban planners, also called regional or city planners, recommend locations for roads, schools, and other infrastructure in order to help local officials solve social, economic, and environmental problems.



## How do I become this?

A master's degree in urban or regional planning from a program accredited by the Planning Accreditation Board generally is required. A master's degree in a related field like urban design or geography also may be acceptable. Bachelor's degrees in economics, geography, political science, or environmental design are good options for preparing for a master's program.

## Who/how do I help?

Urban planners identify community needs and develop short- and long-term plans to create, grow, or revitalize a community or area.



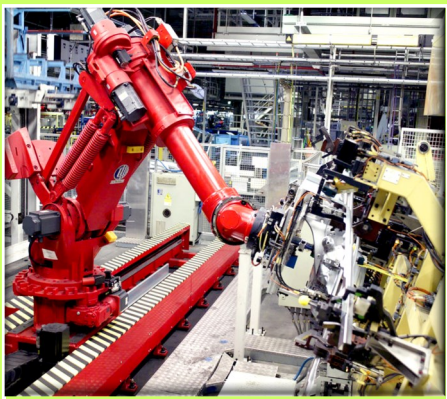
## JOB: Mechanical Engineer

Pay Range: \$39,000-\$100,000

[BACK](#)

### What do I do?

Mechanical engineers research, design, develop and test mechanical and thermal devices including tools, engines, and machines. Some of the more-common devices serve the medical, energy, and automated manufacturing sectors. Many mechanical engineers work in general-purpose and automotive manufacturing, or for architectural and engineering service companies. Mechanical engineers also work in research and development testing laboratories. They typically spend their workdays in professional office settings but sometimes visit work sites to solve problems with existing equipment.



### How do I become this?

Mechanical Engineers need a Bachelor's degree in Mechanical Engineering for most entry level positions, as well as an Engineering License.

### Who/how do I help?

Mechanical engineering plays a critical role in manufactured technologies, from cars to airplanes to refrigerators. It enables you to do many daily activities with ease, as it brings helpful technologies to our modern society.





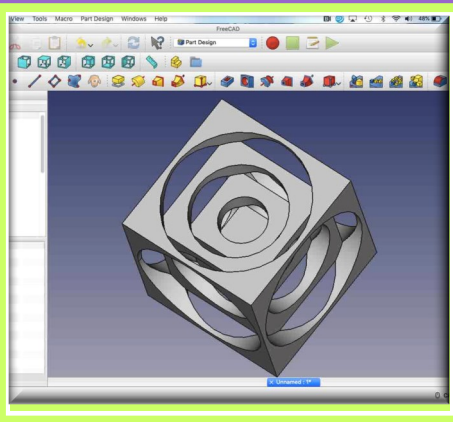
JOB: 3D CAD Designer

Pay Range: \$31,000-\$70,000

BACK

What do I do?

A Computer Aided Design or CAD Technician works in an office environment with special software for the design of structures, products and systems. Their tasks include a variety of design responsibilities including producing design plans for prototypes.

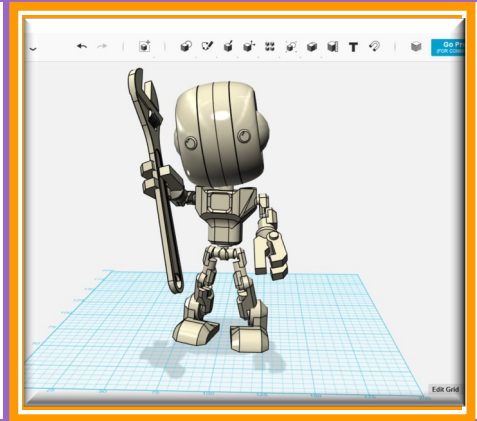
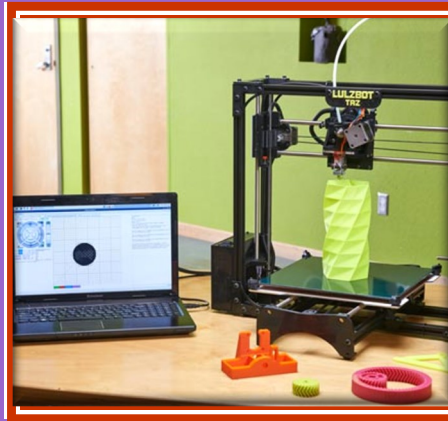


How do I become this?

Prospective CAD technicians generally need to earn an associate's degree, such as an Associate of Applied Science in Computer-Aided Design Technology. Programs at this level can train students to become proficient in CAD software programs and create detailed drawings.

Who/how do I help?

Being able to visualize something in 3D gives the design and construction team an idea of what the finished project should look like.



JOB: Architect

Pay Range: \$51,000-\$120,000

BACK

What do I do?

Architects are the professionals responsible for turning ideas into buildings. At the same time, the daily duties of an architect at a small firm generally consist of communicating, managing projects, researching, planning, designing and drafting.



How do I become this?

Becoming a licensed architect usually requires completion of three years of training that often includes an internship in the field. Passing of the six-division Architect Registration Examination is mandatory for receiving your license.

Who/how do I help?

Architecture affects the way we live. Architecture grew from the human need for shelter, but now it's a form of identity for culture.



JOB: Cartography/Surveying

Pay Range: \$29,000-\$92,000

BACK

What do I do?

Surveyors update boundary lines and prepare sites for construction so that legal disputes are prevented. Surveyors make precise measurements to determine property boundaries. They provide data relevant to the shape and contour of the Earth's surface for engineering, mapmaking, and construction projects.



How do I become this?

A bachelor's degree is needed to work as a surveyor. Most employers prefer job candidates who have majored in surveying, but some will hire workers who have degrees in civil engineering and forestry.

Who/how do I help?

Surveyors use survey equipment to gather data that can be used to help with construction projects, land development & creating accurate maps.





JOB: Physical Therapist

Pay Range: \$60,000-\$115,000

BACK

## What do I do?

Physical therapists help patients with injuries and chronic health conditions regain their range of motion, manage their pain, and improve their quality of life. PTs play a critical role not only in treating musculoskeletal conditions, but also in educating patients about staying fit and preventing future injuries.



## How do I become this?

First you need a bachelor's degree in a health-related field, such as biology, biomedical engineering and physiology. Next you need a Doctor of Physical Therapy (DPT) degree. It takes about 3-4 years to complete the DPT.

## Who/how do I help?

Patients of all ages who have pain, limited movement/mobility because of an injury, illness or disease.



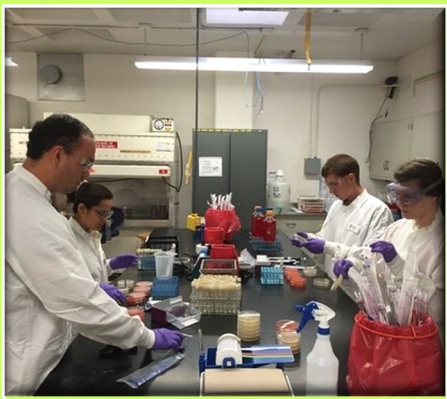
JOB: Nutritionist

Pay Range: \$22,000 - \$76,000

BACK

## What do I do?

A nutritionist evaluates clients' needs to identify their dietary requirements and restrictions. They use their expert knowledge of nutrition and food to help others make better healthy food choices. Their duties include creating meal plans, training the public, and establishing goals.



## How do I become this?

In order to become a nutritionist, you'll need a bachelor's degree in nutrition science, health and wellness or a related field. Many programs include or require an internship so students get hands-on training with a trained nutritionist. Each state has different requirements for certification, but all 50 require some type of certification.

## Who/how do I help?

Patients in hospitals or clinics, residents of nursing homes, and people who want to hire a professional to help them create a healthy eating plan.



JOB: Physician/Surgeon

Pay Range: \$45,000-\$300,000+

BACK

What do I do?

Physicians and surgeons diagnose and treat injuries or illnesses and address health maintenance. Physicians examine patients; take medical histories; prescribe medications; and order, perform, and interpret diagnostic tests. Surgeons operate on patients to treat injuries, diseases and deformities.



How do I become this?

Earn a bachelor's degree in Pre-Med. College juniors interested in a career as a doctor should take the Medical College Admission Test (MCAT). Earn a Doctor of Medicine degree by completing medical school. Students must take and receive a passing score on the United States Medical Licensing Examination (USMLE), a three-part test taken during and after medical school.

Who/how do I help?

People who have health issues, injuries, illnesses, and diseases.





JOB: Geneticist

Pay Range: \$55,000-\$130,000

BACK

What do I do?

A geneticist studies genes to find out how they work, where specific genes are located in a DNA sequence, and how genes contribute to disease. Geneticists also study heredity to find out how diseases are passed to the next generation of organisms.

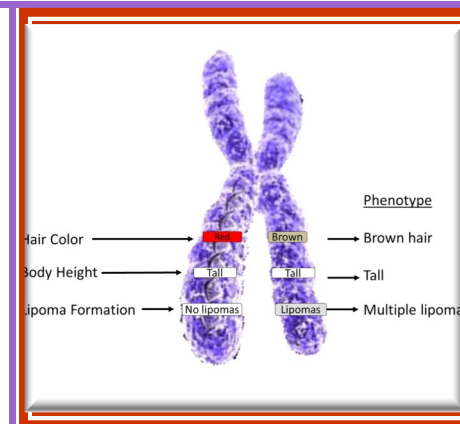


How do I become this?

Earn a bachelor's degree in genetics, biology or related field for entry level positions. A master's degree is required for further advancement. To reach the upper levels of the profession, a geneticist needs a doctorate degree.

Who/how do I help?

Geneticists help medical patients, law enforcement professionals, agricultural companies, pharmaceutical companies, and government agencies with the testing and research they perform.



JOB: Teacher

Pay Range: \$20,000-\$72,000

BACK

## What do I do?

A teacher is responsible for preparing lesson plans and educating students at all levels. Their duties include assigning work, grading tests and documenting progress. Teachers recognize the relationship between social-emotional learning and academic performance and works towards developing and teaching the whole child.



## How do I become this?

Earn at least a bachelor's degree in education. Teacher certification is required in all 50 states, but requirements can vary from state to state. Most states require completing a student teaching experience.

## Who/how do I help?

Teachers work with a wide range of people including children, other teachers, and members of the community. Teachers help the schools and communities where they work operate smoothly through organization and planning.



JOB: Psychologist

Pay Range: \$79,000-\$120,000

BACK

What do I do?

Psychologists study how people think, emotional, and social processes and behavior by observing, interpreting, and recording how individuals relate to one another and to their environments.

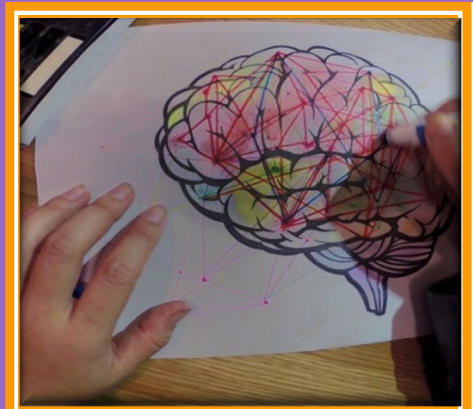


How do I become this?

Psychologists typically need a doctoral degree in psychology, although a master's degree is sufficient for some positions. Most psychologists also need a license.

Who/how do I help?

Psychologists help people who are dealing with stressful situations, overcoming addictions, managing chronic illnesses along with anybody else who needs to talk to somebody about issues or problems in their lives.





JOB: Data Analyst

Pay Range: \$43,000-\$95,000

BACK

What do I do?

Data analysts retrieve and gather data, organize it and use it to reach meaningful conclusions. Data analysts use charts/graphs, standard formulas and methods to analyze the relevant information. They prepare reports detailing the results from their analysis.



How do I become this?

Earn a bachelor's degree in information technology, computer science, statistics or a related field for entry level positions. Internships help you gain experience. Earning a master's degree in data science, data analytics or big data management is useful to advancement in this career.

Who/how do I help?

Almost every industry, whether it is in the public or private sector, has a need for data analysts. A few examples are healthcare, retail, marketing, social media, manufacturing, government agencies among many others.



JOB: Real Estate Agent

Pay Range: \$22,000-\$90,000

BACK

What do I do?

Real estate agents help their clients purchase, rent, or sell properties. They offer information about the housing market and provide guidance and assistance through the process of buying, selling or leasing properties.



How do I become this?

Enroll in Real Estate courses and take the amount of hours required by your state. Complete a background check. Take and pass the Real Estate exam to receive your license. Get on-the-job experience.

Who/how do I help?

Individuals and/or families looking to move or purchase a property by representing them and helping them through the process.



## JOB: Entrepreneur

Pay Range: \$24,000-\$140,000

BACK

### What do I do?

An entrepreneur is "a person who starts a business and is willing to risk loss in order to make money". Entrepreneurs will often see an opportunity and put together a company or organization based on their ideas.



### How do I become this?

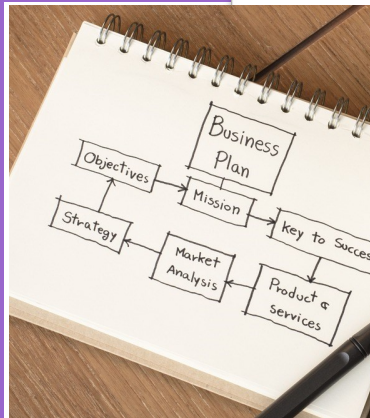
The path to being an entrepreneur tends to start with a great idea. You may turn to your friend and say "wouldn't it be great if...?" and your wheels start turning on what resources and technology you might need to bring this idea to life.

Those interested should create a plan and include the following steps on becoming an entrepreneur: 1) Identify a problem 2) Expand your education 3) Build your network 4) Reach financial security 5) Solve the problem w/a business idea 6) Test the idea 7) Raise money

### Who/how do I help?

Entrepreneurs can help drive change with innovation, where new and improved products enable new markets to be developed.

Entrepreneurs may also solve problems with their innovations and/or businesses.





## JOB: Financial Analyst

Pay Range: \$41,000-\$97,000

[BACK](#)

### What do I do?

Financial analysts are responsible for keeping track of a company's financial plan. Analyzing the company's performance, alongside changes and market trends, helps the analyst create forecasts, but also allows them to calculate differences between those forecasts and actual spending and earning.



### How do I become this?

Earn a bachelor's degree in math, finance or a related field. Licenses and certifications may be needed depending on the industry and state. Internships help you gain experience in the career. A master's degree is beneficial for more opportunities.

### Who/how do I help?

Financial analysts work with banks, insurance companies, investment companies to help their clients earn money on investments. Financial analysts also work for companies to help them maintain a profit from their business.



JOB: Mathematician

Pay Range: \$48,000-\$150,000

BACK

What do I do?

A Mathematician is a specialist or expert in mathematics.



How do I become this?

Becoming a Mathematician may take six to eight years, depending on the level of education that you complete.

Mathematicians typically need a Master's Degree to enter the field. However, some positions are available for those with a Bachelor's Degree.

Who/how do I help?

Math helps us understand the world — and we use the world to understand math. The world is interconnected. Math is a powerful tool for global understanding and communication. Math is used to make sense of the world and solve complex and real problems.



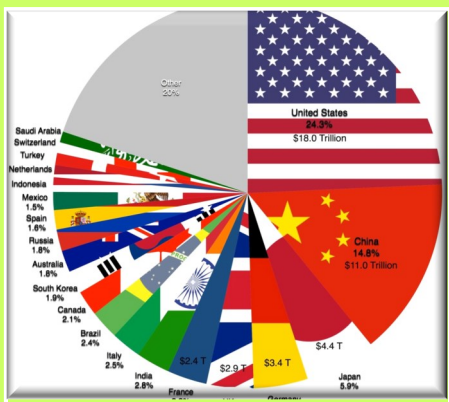
## JOB: Economist

Pay Range: \$49,000-\$180,000

BACK

### What do I do?

Economists collect and analyze financial and socioeconomic data (how people spend money and the occupations and income levels those people), advise businesses and governments on financial and business decisions, and develop models for economic forecasting. Economists also study and analyze the production and distribution of various goods and resources.

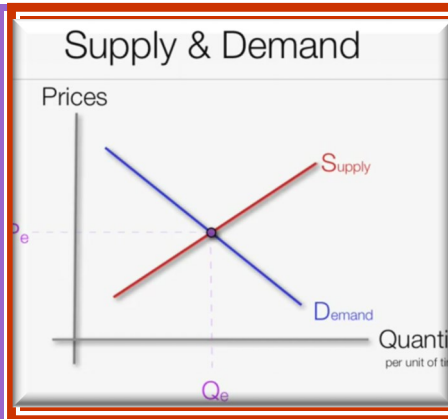


### How do I become this?

A master's degree or Ph.D. is required for most economist jobs. Candidates with a bachelor's degree may qualify for some entry-level economist positions, including jobs with the federal government.

### Who/how do I help?

Economists work with Federal and State governments to help advise them on economic decisions. Scientific research and development services, management consulting services, technical consulting services, finance and insurance are all industries that rely on economists for advice.





## JOB: Solar and Wind Careers

Pay Range: \$40,490-\$83,580

BACK

### What do I do?

- Solar photovoltaic (PV) installers, also known as PV installers, assemble, set up, and maintain rooftop or other systems that convert sunlight into energy.
- Wind turbine service technicians, also known as windtechs, install, maintain, and repair wind turbines.



### How do I become this?

- PV installers take courses at local community colleges or technical schools to learn about solar panel installation. Courses range from basic safety and PV knowledge to system design. Courses usually take several months to complete.
- Most windtechs learn their trade by attending technical schools or community colleges, where they typically complete certificates in wind energy technology, although some workers choose to earn an associate's degree.

### Who/how do I help?

- Residential installers usually work on rooftops of houses and businesses, but also sometimes work in attics and crawl spaces to connect panels to the electrical grid.
- Wind turbine service technicians generally work outdoors, in confined spaces, and often at great heights. They may work for large utility companies, private installers, or and sometimes for governments.



JOB: Climatology

Pay Range: \$29,309-\$78,997

BACK

What do I do?

A climatologist studies weather patterns over a period of time. Their work is similar to that of meteorologists, but focuses on a much longer timescale, studying trends over months, years or even centuries. They may take rock or ice samples for analysis.

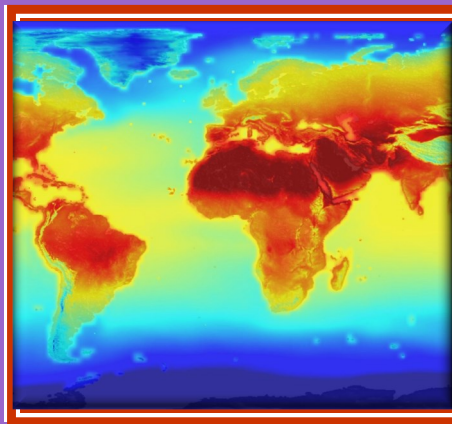


How do I become this?

Entry level climatology positions will require a bachelor's degree in climatology or a related field such as meteorology or atmospheric science. For research and academic positions, a Master's or PhD will be required.

Who/how do I help?

This science helps people better understand the atmospheric conditions that cause weather patterns, temperature changes over time, and what needs to be done to slow or stop climate change.



## JOB: Geology

Pay Range: \$27,000-\$190,000

[BACK](#)

### What do I do?

Geologists study earth processes such as earthquakes, landslides, floods, and volcanic eruptions to survey land and draw up safe building plans. When geologists investigate earth materials, they not only investigate metals and minerals, but also may be looking for oil, natural gas, water and methods to extract these.



### How do I become this?

To become a geologist you'll need to earn a bachelor's degree in geology or geoscience. During this time, you might also do field study work as part of your degree program so you can gain on-the-job experience.

### Who/how do I help?

Geologists can help prepare people for natural disasters. Many Geologists work to study areas that are prone to flooding, sinkholes, and volcanic eruptions, thereby alerting people when these natural disasters are about to occur. Geologists have saved many lives this way.





JOB: Oceanography

Pay Range: \$28,000-\$110,000

BACK

What do I do?

Oceanographers study water, sea life, weather and climates, which helps preserve the natural resource of oceans and coastal waters, as well as contributes to other professionals' ability to predict weather patterns, determine plate tectonics shifting and care for wildlife. There are 4 branches of Oceanography: \*Biological \*Physical \*Geological \*Chemical

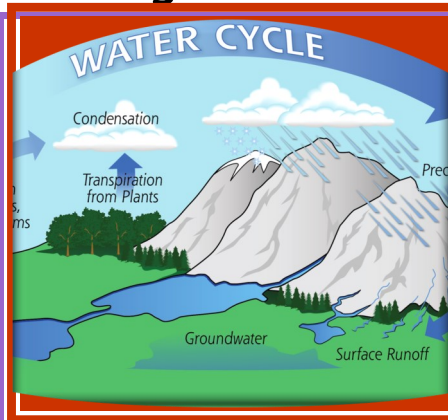


How do I become this?

Oceanography is mostly a research-based career. Most new oceanographers have a degree in oceanography, or a related subject, followed by a postgraduate master's degree in oceanography. Some employers will also expect you to have, or be working towards, a relevant PhD.

Who/how do I help?

The ocean has a great effect on the world's climate because the sea stores so much heat - oceanographers can help to predict future changes in the temperature of the planet, and also to give warning of sea level changes, which could devastate low lying countries and coral reefs.



JOB: Forestry

Pay Range: \$21,000-\$92,000

BACK

What do I do?

Forestry occupations focus on the healthy growth and maintenance of woodlands and parks. Most forestry careers are state and federal government positions.

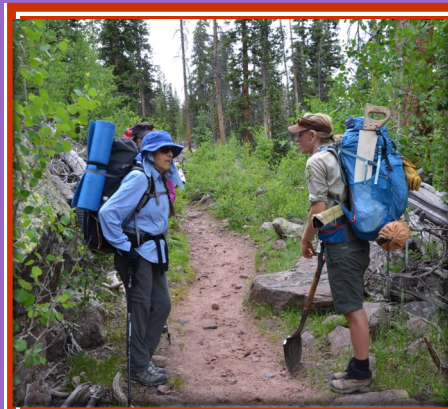


How do I become this?

Forestry careers include fields such as science, engineering, law enforcement, and fire management. The requirements for each career in forestry vary, however most require at least a bachelor's degree in a related STEM field.

Who/how do I help?

Forests purify the air we breathe, filter the water we drink, prevent erosion, and act as an important buffer against climate change. Forests offer a home to much of the world's diverse array of plants and animals and provide essential natural resources from timber and food to medicinal plants.



JOB: Agriculture (farming)

Pay Range: \$32,000-\$130,000

BACK

What do I do?

Agriculture is the science or practice of farming, including cultivation of the soil for the growing of crops and the raising of animals to provide food, wool, and other products.



How do I become this?

You'll need practical farming experience, gained by working as a supervisor, dairy or arable unit manager, or assistant manager. Most farm managers have a qualification in Agriculture, like a foundation degree, higher national diploma or degree in a subject like Agriculture or Farm Business Management.

Who/how do I help?

Shelter, fiber for clothing, and most importantly, food for our growing population is only provided by agriculture.

